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Claims

1. Method for allocating radio resources of a radio communication network to a plurality of users (8, 9), where a user is allocated a certain transmission capacity, characterised in that a utilization factor relating to said transmission capacity is determined and the radio resources are allocated depending on said utilization factor where determining said utilization factor includes determining how much of said transmission capacity is actually used by said user.
2. Method according to claim 1, characterised in that said utilization factor is determined by detecting (18) time intervals in which the user does not exploit the transmission capacity allocated to him.
3. Method according to claim 2, characterised in that those time intervals are detected (18), in which the user does not transmit or receive any data.
4. Method according to claim 3, characterised in that said time intervals are detected by directly monitoring (16.4) a radio interface (10) of the radio communication network and detecting time periods without any data throughput.
5. Method according to claim 3, characterised in that a multilayer protocol stack with a first layer is used to transmit data between a transmitter (8) and a receiver (9) and said time intervals are detected by monitoring (16.5) said first layer directly in the transmitter and/or the receiver.
6. Method according to claim 3, characterised in that, the user is allocated radio resources by allocating a data transmission rate and said time intervals are detected by subtracting a target transmission time for transmitting a certain amount of data with said data transmission rate from an actual transmission time required by the user to trans-

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mit said amount of data, where the actual transmission time is measured and the target transmission time is calculated by dividing said amount of data by said data transmission rate.

- 5 7. Method according to one of claims 1 to 6, characterised in that the transmission capacity allocated to the user comprises several transmission channels and the utilization factor is determined separately for each transmission channel.
- 10 8. Radio communication network with means (21) adapted to allocate radio resources to a plurality of users (8, 9), where a user is allocated a certain transmission capacity, characterised in that the radio network includes means (18, 19) adapted to determine a utilization factor relating to said transmission capacity and in that the means (21) adapted to allocate radio resources are adapted to allocate the radio resources depending on said utilization factor where the means (18, 19) adapted to determine said utilization factor include means adapted to determine how much of said transmission capacity is actually used by said user.
- 15 9. Radio communication network according to claim 8, characterised in that the means (18, 19) adapted to determine the utilization factor are adapted to detect time intervals, in which the user (8, 9) does not exploit the transmission capacity allocated to him.
- 20 10. Radio communication network according to claim 8 or 9, characterised in that the means (18, 19) adapted to determine the utilization factor are adapted to detect time intervals, in which the user does not transmit or receive any data.
11. Radio communication network according to one of claims 8 to 10, where the transmission capacity can be allocated to a user (8, 9) by allocating several transmission channels to the user, characterised in that the means (18, 19) adapted to determine

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the utilization factor are adapted to determine the utilization factor separately for each transmission channel.

- 5 12. Device (16.1, 16.2, 16.3, 16.4, 16.5) for a radio communication network as claimed in one of claims 8 to 11 with means (21) adapted to allocate radio resources to a plurality of users (8, 9), where a user is allocated a certain transmission capacity, characterised in that the device includes means (18, 19) adapted to determine a utilization factor relating to said transmission capacity where the means (18, 19) adapted to determine said utilization factor include means adapted to determine how much of said transmission capacity is actually used by said user.